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Notice of Allowability

Application No.

10/697,169

Examiner

Mohammed Hasan

Applicant(s)

KAZUYASU OHASHI

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1 - 28.
3. ☒ The drawings filed on 31 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

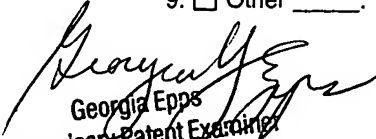
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/02/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800

DETAILED ACTION

Priority

1. Receipt of acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have placed of record in the file.

Oath/Declaration

2. Oath and declaration filed on 3/31/2004 is accepted.

Information Disclosure Statement

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 2/02/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

Allowable Subject Matter

4. Claims 1- 28 are allowed.

Art Unit: 2873

5. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1, 7, 8, 9, 10, 11, 12, 27, 28, for example, which include a zoom lens having a second lens group having four lens structure closest from the subject, a positive lens arranged at a first sub-position, a negative meniscus lens arranged at a second sub-position, a positive meniscus lens at a third sub-position, and conjoined with the negative meniscus lens and a positive lens arranged at a fourth sub-position and satisfies the following condition $.15 < (N_{22} - N_{23}) < .40$, where N_{22} is a refractive index of the negative meniscus lens of the second optical lens group and N_{23} is a refractive index of the positive meniscus lens of the second optical lens group conjoined with the negative meniscus lens (claim 1, 9, 10, 11,); and the zoom lens system satisfies an inequality condition $1.40 < ((1/r_{21F}) + (1/r_{22F}) + (1/r_{22R})) < 2.20$, wherein r_{21F} is a radius of curvature of a subject – side surface of the first positive lens arranged at the first sub-position in the second optical lens group, r_{22F} is a radius of curvature of a subject-side surface of the negative meniscus lens arranged at the second sub-position in the second optical lens group, r_{22R} is a radius of curvature of a conjoined surface of the negative meniscus lens arranged at the second sub-position and the meniscus positive lens arranged at the third sub – position in the second optical lens group, and Y' is an image height (claim 7); and the zoom lens system satisfies an inequality condition $1.40 < L_{PN} / L_2 < .70$, where L_{PN} is a distance

between a summit of the subject –side surface of the first positive lens arranged at the first sub-position and a summit of the conjoined surface of the negative meniscus positive lens arranged at the third sub-position in the second optical lens group, and L_2 is a thickness of the second optical lens group in a direction of a light axis of the second optical lens group (claim 8); and the first lens group comprises from the subject side a negative meniscus lens, a double – convex lens, and a double – concave lens (claim 12,27, and 28).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Shibayama (US 2002/0167736 A1) discloses in order from an object side, a first lens group has a negative refractive power, a second lens group has a positive refractive power and a third lens group has a positive refractive power. The distance between the first and second lens group is decreased and the distance between the second and third lens group is increased upon zooming from a wide-angle end state to a telephoto end state.

Koizumi (5,969,878) discloses the zoom lens system includes in order from an object side of the lens system, a first lens group having a negative refractive power, a second lens group spaced from the first lens group and having a positive refractive power and a third lens group spaced from the second lens group and having a positive refractive power.

Sensui (5,568,323) discloses a zoom lens includes a first lens group having a positive refractive power and rear lens group having a variable positive power, arranged in this order from an object side.

Shiraishi (4,838,666) discloses a wide angle zoom lens of long back focal distance.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

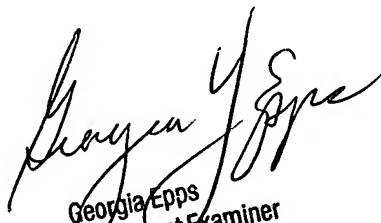
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 19, 2004


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800